

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 82-15

NPDES NO. CA0037443

WASTE DISCHARGE REQUIREMENTS FOR:

SAN RAFAEL SANITATION DISTRICT
MARIN BAY PLANT, MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. San Rafael Sanitation District, Marin Bay Plant (hereinafter discharger), by application dated October 16, 1980 has applied for waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System.
2. The discharger presently discharges domestic waste from its sewage treatment plant into San Pablo Bay, a water of the United States, at 38°, 01', 27" latitude and 122°, 27', 14" longitude.
3. The discharger describes the existing discharge as follows:

- a. Average annual flow in 1979 was 0.101 million gallons per day (mgd) with these constituents:

<u>Constituents</u>	<u>Milligrams per liter (mg/l)</u>	<u>Pounds per day</u>
BOD	15	13
Suspended Solids	22	19

- b. Design flow of the treatment plant is 0.15 mgd.
- c. The waste is discharged just off shore of shellfish beds and some waste could be carried back over a shellfish bed.
4. A Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) was adopted by the Board in April 1975. The Basin Plan contains water quality objectives for San Pablo Bay.
5. The beneficial uses of San Pablo Bay are:
 - a. Water Contact Recreation
 - b. Non-Contact Water Recreation
 - c. Commercial and Sport Fishing
 - d. Wildlife Habitat
 - e. Preservation of Habitat for Rare and Endangered Species
 - f. Marine Habitat
 - g. Fish Migration
 - h. Fish Spawning

- i. Shellfish Harvesting
 - j. Navigation
- 6. The Basin Plan prohibits the discharge of wastewater, which has characteristics of concern to beneficial uses, at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1.
 - 7. The waste discharge is covered by Order No. 77-65 adopted on June 21, 1977.
 - 8. The discharger proposes the following:
 - a. Facilities will be constructed to transport the raw sewage from the Marin Bay Treatment Plant site to the Central Marin Sanitation Agency's new treatment plant.
 - b. The Marin Bay Treatment Plant will be shutdown when Central Marin Sanitation Agency's new treatment plant becomes operational.
 - 9. Novato Sanitary District, as lead agency for the Eastern Marin and Southern Sonoma Wastewater Agencies which include the discharger requested an NPDES Permit time extension for construction of required facilities. This request was pursuant to Section 301(i)(1) of the Federal Water Pollution Control Act (FWPCA), as amended. The Board finds the request warranted and grants the time extension for compliance with Section 301(b) pursuant to Section 301(i) of the Act.
 - 10. Novato Sanitary District as lead agency for the Eastern Marin and Southern Sonoma Wastewater Agencies certified a final Environmental Impact Report (EIR) on September 17, 1979, for their wastewater management projects in accordance with the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.). The members of this Regional Board have received and reviewed a summary of these documents.
 - 11. A negative declaration was also adopted for District's proposal to shutdown the Marin Bay plant and transport the raw sewage to Central Marin Sanitation Agency's new plant for treatment and disposal.
 - 12. The EIR specifies that this project could have the following adverse impact on the environment:

Possible odors from wastewater pumping stations may affect nearby residents.

13. Compliance with Standard Provision A.1. of this Order will mitigate adverse impacts of Finding 12. To maintain compliance, the discharger will cover the pumping station wet well and have the trapped gases scrubbed before venting to the atmosphere. In addition, facilities will be provided to inject odor control chemicals in the force main and control odors from air release valves in the pipeline.
14. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provision of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Prohibitions

1. Discharge of wastewater through the present outfall to San Pablo Bay is prohibited.
2. There shall be no bypass or overflow of untreated wastewater to waters of the United States, either at the treatment plant or from the collection system.
3. The average dry weather flow shall not exceed 0.15 mgd. Average shall be determined over three consecutive months per year.

B. Interim Effluent Limitations

Prior to compliance with Prohibition A.1, the following interim effluent limits shall apply:

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>30-day Average</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
a. BOD	mg/l	40	60	
b. Suspended Solids	mg/l	60	90	
c. Oil & Grease	mg/l	10	20	
d. Settleable Solids	ml/l/hr	0.1		0.2
e. Chlorine Residual	mg/l			0.0

2. The discharger shall operate the treatment facilities to maximize compliance with the following Limitations:

a. Total Coliform Organisms

The median most probable number (MPN) of coliform organisms as discharged, or at some point in the treatment process, shall not exceed 23 per 100 ml. Median is to be determined from bacteriological results of last 7 days for which analyses have been completed.

b. Toxicity:

The survival of test organisms acceptable to this Board in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

c. The pH of the discharge shall not exceed 8.5 or be less than 6.5.

3. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated:(1)

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>50% of time</u>	<u>10% of time</u>
a. Arsenic	mg/l	0.01	0.02
b. Cadmium	mg/l	0.02	0.03
c. Total Chromium	mg/l	0.005	0.01
d. Copper	mg/l	0.2	0.3
e. Lead	mg/l	0.1	0.2
f. Mercury	mg/l	0.001	0.002
g. Nickel	mg/l	0.1	0.2
h. Silver	mg/l	0.02	0.04
i. Zinc	mg/l	0.3	0.5
j. Cyanide	mg/l	0.1	0.2
k. Phenolic Compounds	mg/l	0.5	1.0
l. Total Identifiable Chlorinated Hydrocarbons(2)	mg/l	0.002	0.004

(1)These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

(2)Total Identifiable chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the United States at any place.
 - a. Bottom deposits or aquatic growths;
 - b. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - c. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the United States in any place within one foot of the water surface:
 - a. Dissolved oxygen 5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentrations than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved Sulfide 0.1 mg/l maximum.
3. The discharger shall operate the treatment facilities to maximize compliance with the following limitations:
 - a. The discharge of waste shall not cause the following conditions to exist in waters of the United States at any place:
 - (1) Floating, suspended, or deposited macroscopic particulate matter or foam.
 - (2) Alteration of temperature, turbidity, or apparent color beyond present natural background levels.
 - b. The discharge of waste shall not cause the following limits to be exceeded in waters of the United States in any place within one foot of the water surface:
 - (1) pH Variation from natural ambient pH by more than 0.2 pH units.
 - (2) Un-ionized 0.025 mg/l annual median
Ammonia as N 0.4 mg/l maximum.

D. Provisions

1. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

$\text{Mass Emission Limit in lbs/day} = \text{Concentration limit in mg/l} \times 8.34 \times \text{Actual Flow in mgd Averaged over the Time Interval to which the Limit Applies.}$

2. The discharger shall comply with the following time schedule to achieve compliance with Prohibition A.1 of this Order:

<u>Task</u>	<u>Completion Date</u>
a. Submit plans to SWRCB for 50% design review	May 1, 1982
b. Submit completed plans and specifications	August 1, 1982
c. Begin construction of all necessary facilities	November 1, 1982
d. Full compliance	November 1, 1983

3. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 77-65. Order No. 77-65 is rescinded.
4. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
5. The discharger shall comply with the self-monitoring program as ordered by the Executive Officer.
6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977.
7. This Order expires March 1, 1987. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

8. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 17, 1982.

FRED H. DIERKER
Executive Officer

Attachment:
Standard Provisions, Reporting
Requirements & Definitions (April 1977)